

Genus	Vol. 9 (3): 337-342	Wrocław, 30 IX 1998
-------	---------------------	---------------------

Pseudonotocorax cornelli sp. nov. from India and notes on the
Asian *Platynotini*
(*Coleoptera: Tenebrionidae*)

DARIUSZ IWAN¹ AND JULIO FERRER²

¹Museum and Institute of Zoology, Polish Academy of Sciences, Wilcza 64, 00-679 Warszawa,
Poland; e-mail: darek@robal.miiz.waw.pl

²Stora Hundensgata 631, S-13664 Haninge, Sweden.

ABSTRACT. *Pseudonotocorax cornelli* sp. nov. is described from India. The following synonym is proposed: *Eurynotus laminicollis* FAIRMAIRE, 1894 (= *Indeucolus costatus* KASZAB, 1975).

Key words: entomology, taxonomy, new species, female genitalia, *Coleoptera*, *Tenebrionidae*, *Platynotini*, Asia.

In his 1997 revision IWAN distinguished the genus *Pseudonotocorax* with a newly described species *P. mroczkowskii*, based on the structure of prosternal process, elytral epipleuron and aedeagus. *P. cornelli* sp. nov. is the second known species of the genus *Pseudonotocorax* IWAN.

***Pseudonotocorax cornelli* sp. nov.**

(figs 1-19, 22)

NAME DERIVATION

The species is named in honour of J. CORNELL, collector of the type specimens.

TERRA TYPICA

Maharashtra (India).

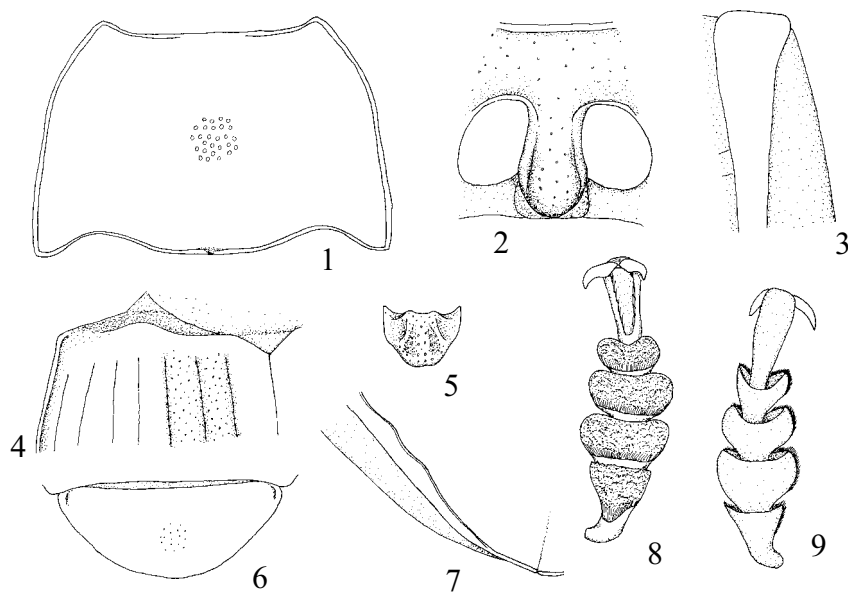
DIAGNOSIS

P. cornelli is close to *mroczkowskii* due to the structure of the prosternal process (strongly convex with narrow bordering disappearing at apex), male fore tibia and tarsus (strongly widened), connection of elytral striae (1-free, 2-9, 3-8, 4-7, 5-6), elytral epipleuron (with "tongue" disappearing just before apex), last abdominal ventrite (without bordering) and aedeagus structure (apical part parallelsided).

The species differ in the pronotum shape (sides narrowing towards apex in *cornelli*; rounded in *mroczkowskii*), elytral puncturation in striae (regular, with very small and rounded punctures in *cornelli*; irregular, punctures elongated and diffused in *mroczkowskii*) and in male characters - structure of fore tibia (with denticle in *cornelli*, widened in *mroczkowskii*), mid tibia (with sharp denticle in *cornelli*, obtuse in *mroczkowskii*), hind tibia (with a large, preapical denticle in *cornelli*, simple in *mroczkowskii*) and mid femur (simple in *cornelli*; with small denticle on the inner side in *mroczkowskii*).

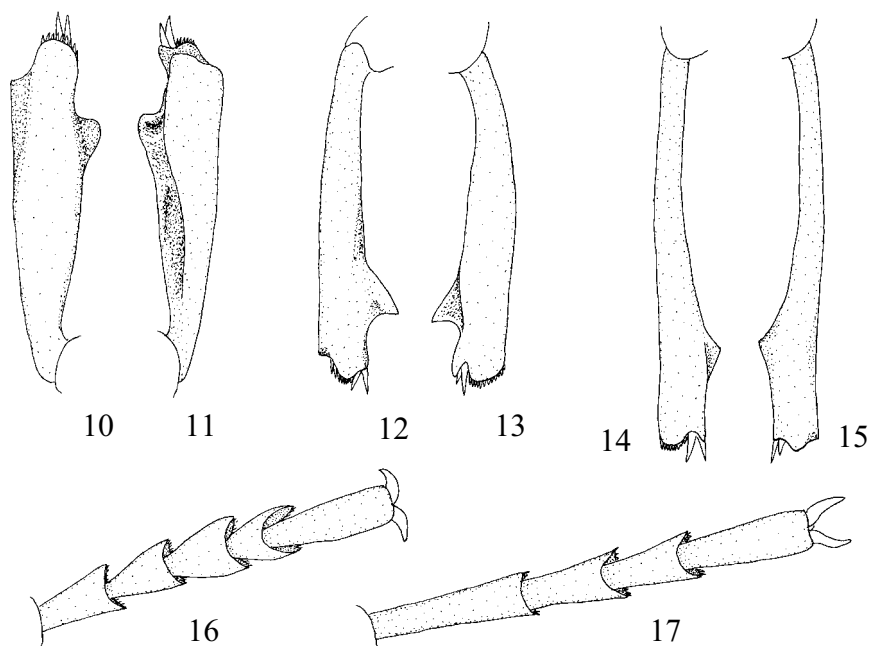
DESCRIPTION

Body oval, in posterior part of elytra distinctly convex, upperside mat, underside with a greasy sheen. Male (holotype): length 15.3 mm, pronotum length/breadth ratio ca. 0.59, elytra length/breadth ratio ca. 1.34, length ratio



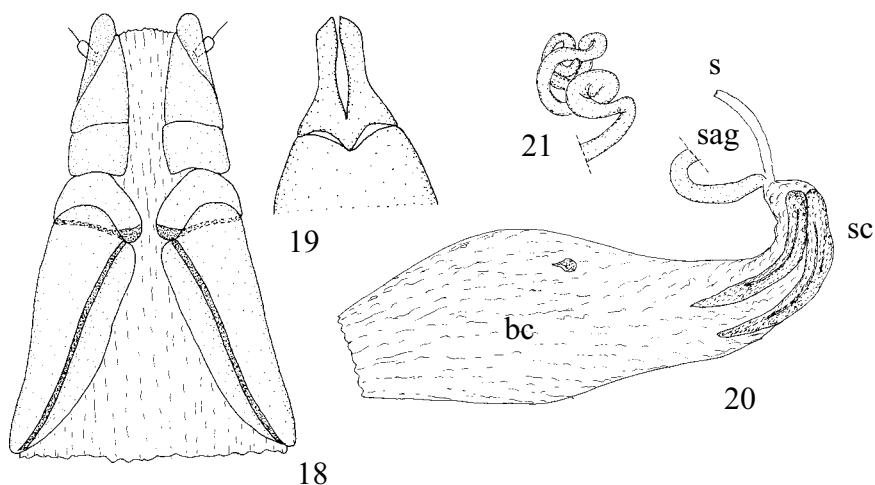
1-9. *Pseudonotocorax cornelli*: 1 – pronotum; 2 – prosternal process; 3 – basal part of elytral epipleuron; 4 – anterior part of elytron; 5 – mentum; 6 – last abdominal ventrite; 7 – apical part of elytral epipleuron; 8 – ventral and 9 – dorsal view of male fore tarsus

pronotum/elytra ca. 0.34, breadth ratio pronotum/elytra ca. 0.78; female (paratype): length 17.5 mm, pl/pb ca. 0.60, el/eb ca. 1.30, pl/el ca. 0.37, pb/eb ca. 0.80. Head widest at temple level; eye poorly narrowed laterally (between tempus and gena 5 facets). Head and pronotum puncturation fairly dense, distance between punctures ca. 1.0-2.0 puncture diameter. Antennal segment 3 ca. 3.0-3.4 x as long as segment 2. Mentum as in fig. 5. Pronotum (fig. 1) widest at base; sides narrowed towards apex, without emargination anterior to posterior angles (as in the genus *Adamus*); posterior angles sharp; lateral border very narrow (ca. 0.22-0.28 x width of antennal segment 3); bordering of anterior margin widely interrupted in middle; base entirely bordered, strongly bisinuate emarginate. Scutellum glossy, strongly punctate, relatively large (distance between humeral angle and scutellum ca. 3.5 x scutellum width). Anterior part of elytron as in fig. 4. Humeral angles rounded; puncturation in striae regular, punctures very small; intervals very poorly convex, puncturation barely visible; connection of elytral striae as follows: 1-free, 2-9, 3-8, 4-7, 5-6, epipleuron strongly narrowed (fig. 3), its bordering („tongue”) disappearing just before apex (fig. 7); elytra strongly tucked in - interval IX and parts of VIII and VII visible from the underside. Prosterum practically smooth; prosternal process strongly convex; bordering narrow, disappearing at apex (fig. 2). Last abdominal ventrite unbordered; only



10-17. *Pseudonotocorax cornelli*: 10 – dorsal and 11 – ventral view of male fore tibia; 12 – dorsal and 13 – ventral view of male mid tibia; 14 – ventral and 15 – dorsal view of male hind tibia; 16 – mid and 17 – hind male tarsi, dorsal view

delicate prints at base visible (fig. 6). Male legs: fore tarsi strongly widened (on underside short, dense hairs, without glabrous gutters) (figs 8, 9), mid and hind tarsi narrow (figs 16, 17), median glabrous gutters on each segment, fore tibia moderately widened, with a wide longitudinal ridge and obtuse denticle on inner margin (figs 10, 11); on mid tibia a sharp preapical denticle (figs 12, 13), hind tibia apically widened (figs 14, 15), mid femur simple. Aedeagus as in fig. 19, apical part narrowed, but sides parallel, length ratio apical part/basal part of aedeagal tegmen = 1.0/4.1; ovipositor (fig. 18): length ratio paraproct/coxites1 = 4.3, coxites1 breadth/length ratio = 1.5, length ratios coxites1/coxites2/coxites3/coxites4/coxites4-coxites3 = 1.0/0.9/1.7/1.3/0.7.



18-19. *Pseudonotocorax cornelli*; 20-21. *Rugoplatynotus andrewesi*: 18 – ovipositor; 19 – apical part of aedeagus, dorsal view; 20 – internal female genitalia (bc – bursa copulatrix, sc – sclerites, s – spermatheca, sag – spermathecal accessory gland); 21 – spermatheca

DISTRIBUTION (fig. 22)

India.

TYPES

Holotype, male, JFC: "Maharashtra, Bangalore, UM, 3 July 92, J CORNELL". Paratype, female, JFC: "Maharashtra, Aurangabad, 9 July 92, J CORNELL, under stones".

Eucolus laminicollis (FAIRMAIRE, 1894) **comb. nov.**

Eurynotus laminicollis FAIRMAIRE, 1894: 322.

Eurynotus laminicollis FAIRMAIRE: GEBIEN 1910: 276, 1938: 295 [414]; KOCH 1953: 3.

Indeucolus costatus KASZAB, 1975: 282 **syn. nov.**

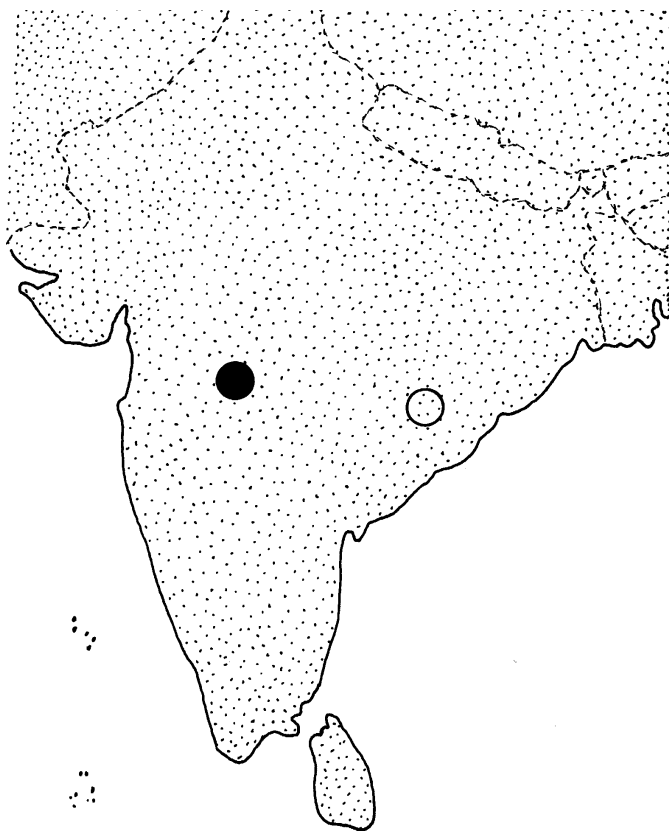
Eucolus costatus (KASZAB): IWAN 1997: 259.

The results of the present supplementary studies on the female genitalia (the presence of the “lock” mechanism in the bursa copulatrix) of this species confirm IWAN’s (1997) interpretation of the genus *Eucolus*.

TYPES

Eurynotus laminicollis FAIRMAIRE, 1894: Holotype, male, MNHN: “*Eurynotus laminicollis* FAIRM., Abyssinia; Abyssinia; Type; Muséum Paris, 1906, coll. L. FAIRMAIRE”. Examined.

Indeucolus costatus KASZAB, 1975: Holotype, male, HNHN: “Holotypus, 1974, *Indeucolus* gen. nov. *costatus*, KASZAB; Gates Merales, Hindoustan”. Paratype, female, HNHN: “Paratypus, 1974, *Indeucolus costatus*, KASZAB; Lidney Parry, Ceylon; Museum Frey, Tutzing”. Examined.



22. Distribution of *Pseudonotocorax cornelli* (solid circle) and *P. mroczkowskii* (open circle)

***Rugoplatynotus* KASZAB**

(figs 20, 21)

Rugoplatynotus Kaszab, 1975: 288; Iwan 1997: 270.

Type species, by monotypy: *Pseudoblaps Andrewesii* FAIRMAIRE, 1896.

KASZAB (1975) distinguished the genus *Rugoplatynotus*, with a single species *P. andrewesi* (FAIRMAIRE). This genus is defined by the following characters: complete absence of pronotal bordering and the presence of shiny tubercles covering pronotum and elytra.

The male mid femur with the denticle and the absence of „tongue” in the apical part of elytral epipleuron place *Rugoplatynotus* close to the „*Menearchus*” lineage, while the structure of the aedeagus (strongly tapered apical part) and the distribution place it near the „*Platynotus*” lineage (IWAN, 1997).

The present interpretation of *Rugoplatynotus* on the basis of characters of female genitalia (large sclerites in the bursa copulatrix), the presence of the same structure of the aedeagus, specific connection of elytral striae (1-free, 2-9, 3-6, 4-5, 7-8) indicates close affinity with the genus *Notocorax*.

ABBREVIATIONS

HNHM - Hungarian Natural History Museum, Budapest, Hungary (O. MERKL);

JFC - Julio FERRER Collection, Stockholm, Sweden;

MNHN - Muséum National d'Histoire Naturelle, Paris, France (C. GIRARD).

ACKNOWLEDGEMENTS

We are grateful to the mentioned above curators and institutions for the loan of specimens used in this study.

The paper was partly sponsored by the State Committee for Scientific Research (grant no. 6 P04C 074 12).

REFERENCES

- FAIRMAIRE, L., 1894. Coléoptères de l'Afrique Intertropicale et Australe. Annales de la Société Entomologique de Belgique, **38**: 314-334.
- , 1896. Hétéromères de l'Indie recueillis par M. ANDREWS. Annales de la Société Entomologique de Belgique, **40**: 6-62.
- GEBIEN, H. 1910. *Tenebrionidae* I. In: W. JUNK, S. SCHENKLING, Coleopterorum Catalogus, 18, pp. 167-354, Berlin.
- , 1938. Katalog der Tenebrioniden. 16. *Pedinini*. Mitteilungen der Munchener Entomologischen Gesellschaft, **28**: 291-408.
- IWAN, D., 1997. Revision of the Asian genera of the tribe *Platynotini* (Coleoptera: Tenebrionidae). Annales Zoologici, **47**(1-2): 243-272.
- KASZAB, Z., 1975. Revision der asiatischen Platynotinen (Coleoptera: Tenebrionidae). Acta Zoologica Academiae Scientiarum Hungaricae, **21**(3-4): 277-367.